

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A single-stage thermoelectric converting device comprising:

a P type thermoelectric element;

~~an N type thermoelectric element, the N type thermoelectric element connected with the P type thermoelectric element and the N type thermoelectric element alternately to be electrically in series;~~

an electrode circuit contacting an end of the P type thermoelectric element and an end of the N type thermoelectric element for establishing an in-series connection there between;

an insulation substrate including a plurality of penetration bores;

~~at least one~~ an electric circuit ~~forming a layer with the electrode circuit via the insulation substrate~~, the electric circuit, the insulation substrate, and the electrode circuit being formed into a layered structure wherein the electrode circuit and the electric circuit are provided at opposite sides of the insulation substrate respectively; and

a conduction member passing through the penetration bores of the insulation substrate and for electrically conducting the electrode circuit and the electric circuit.

Claim 2 (Currently Amended): The single-stage thermoelectric converting device according to claim 1, wherein the P type thermoelectric element and the N type thermoelectric element are arranged in a linear mode along the electric circuit ~~linearly positioned at the electrode circuit respectively.~~

Claims 3-7 (Canceled).

Claim 8 (New): The single-stage thermoelectric converting device according to claim 1, wherein:

the P type thermoelectric element comprises a plurality of P type thermoelectric elements and the N type thermoelectric element comprises a plurality of N type thermoelectric elements,

the plurality of P type and N type thermoelectric elements being arranged in a plurality of linear arrays to form a grid pattern, and

the electric circuit comprises a plurality of electric circuits, at least one electric circuit connecting a P type thermoelectric element to an N type thermoelectric element in a different linear array of elements.

Claim 9 (New): The single-stage thermoelectric converting device according to claim 8, wherein the at least one electric circuit connects a P type thermoelectric element to a diagonally adjacent N type thermoelectric element in a different linear array of elements.

Claim 10 (New): The single-stage thermoelectric converting device according to claim 8, wherein the at least one electric circuit connects a P type thermoelectric element to a non-adjacent N type thermoelectric element in a different linear array of elements.

Claim 11 (New): The single-stage thermoelectric converting device according to claim 8, wherein the electrode circuit comprises a plurality of electrode circuits each connecting a P type thermoelectric element to an N type thermoelectric element in a same linear array of elements.

Claim 12 (New): The single-stage thermoelectric converting device according to claim 1, wherein the plurality of electrode circuits are provided on a same side of the insulating substrate such that each electrode circuit connects a P type thermoelectric element to an N type thermoelectric element on a same side of the insulating substrate.